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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,861	11/29/2001	Timothy A. Hegemier	60680-1489	6729

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EXAMINER

KEASEL, ERIC S

ART UNIT	PAPER NUMBER
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3754

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/997,861

Applicant(s)

HEGEMIER ET AL.

Examiner

Eric Keasel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,7,8,11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,9,10 and 13-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of Species C in Paper No. 7 is acknowledged. The traversal is on the ground(s) that searching the four embodiments would not be a burden on the office. This is not found persuasive because the four embodiments are very different (e.g. Species D is just a washer, while other embodiments (including elected Species C) include an elastomeric seal body and a retainer for the seal body). There is no reason for the examiner to be burdened with searching for washers, when applicant has elected an embodiment comprising an elastomeric seal body and a retainer for the seal body. It is also noted that applicant has not taken the opportunity to state that any of the four embodiments are obvious variations of the other embodiments, which would result in examination of all claims.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 3, 4, 7, 8, 11, and 12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7. Applicant has stated that claims 1, 5, 6, and 8-19 read on species C. However, this is clearly wrong. Claim 8 is dependent on claim 7, which is clearly drawn to the jagged structure of Species B. Similarly, claims 11 and 12 are drawn to non-elected Species C. Applicant has also erroneously omitted claim 2, which is essentially the same in scope as claims 10 and 14, which were properly included in the election.

*Claim Objections*

3. Claim 1 is objected to because the last lines of the claim have been amended to recite, "adapted for engagement the cylinder head". It appears that either "engagement" should be --engaging-- or --with-- should be inserted after "engagement". Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 13, 14, 16, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Heshner (US Patent Number 6,119,645).

Heshner discloses a valve stem seal anti-rotation assembly comprising an elastomeric seal body (40) and a cylindrical retainer (42) defining a longitudinal axis, said retainer comprising an upper end portion that circumferentially supports said seal body (see Fig. 4); said elastomeric seal body comprising an annular valve stem seal adapted for sealingly engaging a reciprocally movable valve stem (32); said cylindrical retainer further comprising a lower extremity defining a radially outwardly extending spring seat flange (44) including a radially extending bottom surface adapted to bear against a cylinder head deck (24), wherein said bottom surface comprises at least one protrusion (72) extending axially downwardly therefrom and adapted for engagement with at least one depression (76) in the cylinder head deck that corresponds to said protrusion; wherein said protrusion on said bottom surface of said spring seat flange that engages said

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depression is adapted to resist torque forces applied to said spring seat flange by mechanical vibrations.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 15, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heshner as applied to claims 14 and 17 above, and further in view of DeBolt (US Patent Number 4,470,383).

Heshner discloses the sharp edge of the protrusion seating in a preformed depression in the deck rather than having the protrusion being adapted to "bite" the deck to create the depression. DeBolt discloses a similar anti-rotation valve stem seal that has protrusions (40) on the flange of the spring retainer, wherein the protrusions create depressions (indentations) that the protrusions

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sit in to prevent undesirable rotation (see column 4, lines 9-21). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the sharp edge of the protrusion of Heshner to create the depression in a similar manner as taught by DeBolt in order to allow the depressions to be formed on various surfaces as taught by DeBolt.

8. Claims 5, 6, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heshner in view of DeBolt.

Heshner discloses a valve stem seal anti-rotation assembly comprising an elastomeric seal body (40) and a cylindrical retainer (42) defining a longitudinal axis, said retainer comprising an upper end portion that circumferentially supports said seal body (see Fig. 4); said elastomeric seal body comprising an annular valve stem seal adapted for sealingly engaging a reciprocally movable valve stem (32); said cylindrical retainer further comprising a lower extremity defining a radially outwardly extending spring seat flange (44) including a radially extending bottom surface adapted to bear against a cylinder head deck (24), wherein said bottom surface comprises at least one protrusion (72) extending axially downwardly therefrom and adapted for engagement with at least one depression (76) in the cylinder head deck that corresponds to said protrusion; wherein said protrusion on said bottom surface of said spring seat flange that engages said depression is adapted to resist torque forces applied to said spring seat flange by mechanical vibrations.

Heshner discloses the sharp edge of the protrusion seating in a preformed depression in the deck rather than having the protrusion being adapted to "bite" the deck to create the depression. DeBolt discloses a similar anti-rotation valve stem seal that has protrusions (40) on the flange of the spring retainer, wherein the protrusions create depressions (indentations) that the protrusions

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sit in to prevent undesirable rotation (see column 4, lines 9-21). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the sharp edge of the protrusion of Heshner to create the depression in a similar manner as taught by DeBolt in order to allow the depressions to be formed on various surfaces as taught by DeBolt.

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Disch discloses a jagged edge (see Fig. 3) that appears to be relevant to non-elected Species B. Moray, Poggio, Lafever, Binford, and Kirchner et al. disclose similar valve stem seals.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (703) 308-2696. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

*Eric Keasel* 8 OCT 03  
Eric Keasel  
Examiner  
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